Table S1. Standard antibiotic dosages used in the cohort

Agent	Dose
Intravenous	
Flucloxacillin	2g q6h
Cefazolin	2g q8h
Vancomycin	Aim trough 15-20 mg/L for intermittent dosing, 15-25 mg/L for continuous infusion
Benzylpenicillin	2.4g q6h
Oral	
Flucloxacillin	1g tds
Cefalexin	1g tds
Co-trimoxazole	960mg bd if weight <90 kg 960mg tds if weight >90 kg
Clindamycin	600mg tds-qid

Note: q6h, every 6 hours; q8h, every 8 hours; tds, three times daily; bd, twice daily; qid, four times daily

Table S2. Reasons why EOS not performed

Pt. No.	Reason	SAB-related clinical judgement from ID[a]
2	Compromised intestinal absorption.	N
5	Very complex patient with multiple previous healthcare associated complications. ID service recommended 14 days IV.	Y
10	14 days IV recommended by ID. Reason for this not clearly documented.	Y
11	14 days IV recommended by ID. Reason for this not clearly documented.	Y
18	Not seen by ID.	N
21	EOS advice from ID team not followed.	N
34	Patient transferred to another region.	N
59	Patient transferred to another region.	N
73	EOS advice from ID team not followed.	N
75	Unable to swallow.	N
144	Unable to swallow.	N
145	Patient transferred to another region.	N
148	EOS advice from ID team not followed.	N
158	14 days IV recommended by ID team due to planned heart valve surgery (not related to SAB).	Y
163	14 days IV recommended by ID team. Not clearly documented, but likely due to presence of EVAR graft which was not thought to be infected at time of initial assessment.	Y
166	EOS advice from ID team not followed.	N

[a] This refers to whether the ID team advised 14 days of IV therapy despite the patient meeting low-risk SAB criteria and not having any other contraindications to oral therapy.

Note: EOS, early oral switch; ID, infectious diseases; IV, intravenous; SAB, *Staphylococcus aureus* bacteremia; EVAR, endovascular aneurysm repair

Table S3. Clinical details of episodes of SAB recurrences

Pt. No.	Age	Sex	Infection site	Prosthetic material	Initial isolate		Initial treatment	Clearance BC timing	Repeat isolate			Treatment	Survived	Conclusion
					Susceptibility pattern	*Spa* type			Time to relapse[a] (days)	Susceptibility pattern	Spa type			
25	74	F	PIVC	THJR	MSSA	N/A	PO CL 10 days	4 days	19	MSSA	N/A	IV CZ 14 days TEE negative	Y	Relapse
163	87	M	PIVC	EVAR, THJR	MSSA	t002	IV FL 14 days	3 days	23	MSSA	t002	IV FL 5 weeks PO DC lifelong	Y	Relapse
169	32	M	PIVC	ICD, MVR	MRSA	t002	IV VA 5 days PO CL 14 days	2 days	47	MSSA	N/A	IV FL 7 days PO FL 10 days TEE negative	Y	New infection (new leg cellulitis)
185	60	M	PIVC	Nil	PSSA	t306	IV FL 2 days PO FL 14 days	4 days	38	MSSA	t3258	IV + PO FL for 14 days Had EOS at < 7days but exact timing unclear	Y	New infection (new phlebitis from PIVC)

[a] Dated from initial positive BC.

BC, blood culture; PIVC, peripheral intravenous cannula; THJR, total hip joint replacement; N/A, not available; PO, oral; CL, clindamycin; CZ, cefazolin; TEE, transesophageal echocardiogram; EVAR, endovascular aneurysm repair; IV, intravenous; FL, flucloxacillin; DC, doxycycline; ICD, implantable cardioverter-defibrillator; MVR, mitral valve replacement; VA, vancomycin; PSSA, penicillin susceptible *Staphylococcus aureus*; MRSA, methicillin resistant *Staphylococcus aureus*; MSSA, methicillin susceptible *Staphylococcus aureus*; EOS, early oral switch

Table S4. Reasons for readmission within 90 days of initial SAB

Patient no.	Readmission reason	Related to initial SAB?
1	Non cardiac chest pain.	N
2	Line infection with *Pseudomonas.*	N
6	Post-operative hematoma.	N
10	*C. difficile* negative diarrhea. Non-neutropenic fever. BC negative.	N
11	Congestive heart failure and pneumonia. BCs negative.	N
12	Delirium and urinary tract infection with *E. coli*.	N
16	Chemotherapy adverse drug reaction.	N
17	Capecitabine colitis.	N
18	Hydrocephalus.	N
25	Recurrent SAB, no deep source identified.	Y
27	Hematoma due to heparin.	N
38	Treatment for deep vein thrombosis.	N
39	Mechanical issue with urinary catheter.	N
45	Hypercalcemia.	N
48	Progressive graft versus host disease.	N
49	Bowel obstruction, parastomal infection, no BCs taken.	N
54	Hernia.	N
55	Presyncopal episode of unknown cause and gastroenteritis.	N
73	Congestive heart failure.	N
76	Pubic ramus fracture.	N
78	Heart failure, stroke. BC negative.	N
83	Chest pain.	N
87	Constipation, biliary sepsis. BC negative.	N
101	Elective bladder surgery.	N
111	Pulmonary embolism.	N
123	Myocardial infarction and syncopal episodes of unknown cause.	N
132	Pneumonia. BC negative x2.	N
133	Porphyria, chronic abdominal pain.	N
135	Superficial vein graft site infection, no microbiology. Initial SAB had been due to central line infection at different site.	N
143	Possible clot infection at PICC line site. BCs negative x3.	Y
163	Recurrent SAB with possible infected EVAR graft.	Y
169	New SAB with MSSA due to leg cellulitis. Previous SAB was MRSA.	N
177	Small bowel obstruction.	N
179	VF arrest due to underlying heart condition.	N
184	Aneurysm at femoral venipuncture site, which had been the initial source of infection. On readmission the patient was well, afebrile, inflammatory markers were decreasing and all microbiology samples taken in theatre were negative. Thought to represent residual damage to vessel from initial infection, rather than ongoing deep infection. Was however covered with two further weeks of oral flucloxacillin.	Y
185	New SAB with different spa type to original SAB.	N

Note: BC, blood culture; SAB, *Staphylococcus aureus* bacteremia; PICC, peripherally inserted central catheter; EVAR, endovascular aneurysm repair; MSSA, methicillin susceptible *Staphylococcus aureus*; MRSA, methicillin resistant *Staphylococcus aureus*; VF, ventricular fibrillation